

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/001156

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: G02C 7/04, A61F 9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 DWPI Keywords (G02C, A61F, A61B, orthokeratology, contact lens, soft, pliable, ductile, malleable, flexible, conform, gel, silicone, change, alter, modify, adjust, correct, model, vary, variable, shape, cornea) and like terms
 DWPI Keywords (G02C, A61F, A61B, orthokeratology, contact lens, soft, pliable, ductile, malleable, flexible, conform, gel, silicone, oxygen, air, transmit, permeate, elastic modulus, model, analysis, finite, element) and like terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 02/29446 A2 (PARAGON VISION) 11 April 2002 whole document	1-3, 7-9 5, 6, 12
Y	US 6241355 B1 (BARSKY) 5 June 2001 whole document	12
X Y	US 6010219 A (STOYAN) 4 January 2000 whole document	1-3, 7-9 5, 6, 12

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
29 September 2004

Date of mailing of the international search report

7 OCT 2004

Name and mailing address of the ISA/AU

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96/31545 A1 (CIBA-GEIGY AG et al) 10 October 1996 whole document	5, 6
X	US 5428412 A (STOYAN) 27 June 1995 whole document	1-3, 7-9
Y		5, 6, 12
X	US 4952045 A (STOYAN) 28 August 1990 whole document	1-3, 7-9
Y		5, 6, 12
A	GB 2382155 A (MITSUI) 21 May 2003 whole document	
A	US 2002/0163620 A1 (MIYAMURA et al) 7 November 2002 paragraphs 15, 16, and 60-68 Figs. 1-3	
A	US 2002/0101563 A1 (MIYAMURA et al) 1 August 2002 paragraphs 16, 32, and 59-69 Figs. 3, 4	
A	WO 02/41070 A1 (TUNG) 23 May 2002 whole document	

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
See extra page.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: III

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1 to 11 relate to a soft contact lens having a generally concave posterior surface and a convex anterior surface, the contact lens having mechanical and/or a geometric shape such that when the lens is fitted to the eye the pressure applied to the eye by or via the contact lens will vary between at least one zone of higher pressure and one zone of lower pressure so as to at least temporarily change the shape of the cornea. It is considered that the zones of higher and lower pressure of the contact lens comprises a first "special technical feature".
2. Claims 12 to 14 relate to a method of refractive error reduction of an eye by corneal reshaping including the steps of determining the required refractive correction for the eye, characterizing the surface shape of at least that part of the eye which is to be subjected to reshaping, and selecting a soft lens having a geometric configuration such that when fitted to the eye will apply pressures to the eye to assist in reshaping the cornea. It is considered that characterizing the surface shape of at least the part of the eye subjected to be reshaped comprises a second special technical feature.

"These groups are not so linked as to form a single general inventive concept, that is, they do not have any common inventive features, which define a contribution over the prior art. The common concept linking together these groups of claims is using a soft contact lens for orthokeratology. However this concept is not novel in the light of WO 02/29446, US 6010219, US 5428412, and US 4952045. Therefore these claims lack unity a posteriori.

However since all these inventions share the same IPC classifications they could be searched and examined together without effort which would warrant an additional fee.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
WO	0229446	EP	1334398		
US	6421355	US	6411618	US	6434167
US	6010219			US	2002024966
WO	9631545	AU	53338/96	CA	2215139
		NO	974499	US	5973089
US	5428412	US	5191365	US	5349395
US	4952045				
GB	2382155	CA	2369511	CN	1420380
		FR	2832517	JP	2003144479
		US	2004070732	DE	10258152
US	2002163620	EP	1243961	JP	2002350787
US	2002101563	EP	1233297	JP	2002303831
WO	0241070	AU	28644/02	US	6543897
		WO	2004015479	US	2002186344
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					
END OF ANNEX					